

Bernard F. Erlanger, Ph.D.

BERNARD F. ERLANGER**CURRICULUM VITAE**

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Home Address: 163-16 15th Drive, Whitestone, NY 11357

EDUCATION

B.S. in Chemistry, City College of NY (highest honors)

M.A. in Chemistry, New York University

Ph.D. in Biochemistry, Columbia University

PROFESSIONAL BACKGROUND

1994-1995-Chairman, Search Committee for a Chairman of Department of Pharmacology

1992- Pres.- Member, Science and Technology Committee, Columbia University

1992 - Director, NIH Training Grant, Graduate Training in Nutrition Sciences

1989 - Invited Expert Analyst - Biochemistry and Molecular Biology Edition of Chemtracts

1988-1994.- University Policy Committee on Science and Technology-1996, Chair.

1988-Pres.- Doctoral Program Subcommittee in Nutrition

1987-1994.- Steering Comm. Integrated Grad. Program in Cellular, Molecular and Biophysical Studies.

1985-1995. - Co-Director, National Inst. of Health Medical Scientist Training Program.

1985-1988 - National Inst. of Health Neurology C AHR Study Section

1985-1986 - Acting Chairman, Dept. of Microbiology, Columbia Univ.

1983-1985 - Vice Chairman, Dept. of Microbiology, Columbia Univ.

1982 - Organizer and Co-Director of NATO Advanced Studies Institute Colloquium on "Molecular Models of Photo-responsiveness," in San Miniato (Pisa, Italy), Aug. 29-Sept.8.

1981-1991- Associate Editor, Proc. Soc. Exptl. Biol. and Med.

1979 - Scholar of the American Cancer Society, in laboratory of S. Avrameas, Institut Pasteur, Paris, France

1978 - (1 month) Visiting Scientist, Institute of Cell Biology, Shanghai, People's Republic of China

1977-1978 - Acting Chairman, Dept. of Microbiology, Columbia Univ.

1978 - Member, Conference Committee, N.Y. Academy of Sciences

1976-1980 - Advisory Editor, Immunochemistry

HONORARY SOCIETIES AND HONORS

Bernard F. Erlanger, Ph.D.

Phi Beta Kappa
Fulbright Scholar
Guggenheim Fellow
American Cancer Society Scholar
Sigma Xi
American Men of Science
Who's Who in America
New York Heart Association Sigma Alpha Mu/Gamma Chapter Award
Who's Who in the World
Medal, 600th Anniversary of Copernican Medical Faculty of Jagiellonian University,
Cracow, Poland
Townsend Harris Medal, Alumni Association, City College of New York
Distinguished Service Award, Columbia College of Physicians and Surgeons

PROFESSIONAL SOCIETIES

American Association for the Advancement of Science
American Association of Immunologists
American Chemical Society
American Society of Biological Chemists
American Society for Cell Biology
American Society for Photobiology
Enzyme Club
The Harvey Society

MISCELLANEOUS

Paper No. 33 - Designated as a "Citation Classic" by Current Contents. Also listed as one of the 101 most cited articles of the 1960's (Current Contents 35, 5 (1979) Aug. 27.

Paper No. 16 - Designated as a "Citation Classic" by Current Contents.
Paper No. 42 - Designated as a "Citation Classic" by Current Contents.

Guest, Copernican Medical Academy of the Jagiellonian University in Cracow,
Poland, September 1979 - Presented medal of 600th Anniversary of Medical Faculty.

Invited Symposium Speaker

Symposium on Nucleic Acid Photochemistry, 6th Annual Meeting of the American Society of Photobiology, Vermont, 1978
Symposium on Photochromic Pigments and Photomorphogenesis, 6th Annual Meeting of the American Society of Photobiology, Vermont, 1978
Gordon Conference on Drug Carriers in Biology and Medicine, New Hampshire, 1978

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Symposium on Photoregulation - Rhythms, Eighth International Congress on Photobiology, Strasbourg, France, 1980

EMBO Workshop: Immunological Aspects of Nuclear Components, Portofino, Italy, 1980

Co-Director of NATO Advanced Study Institute: Molecular Models of Photoresponsiveness, S. Miniato, Pisa (Italy), Aug. 29-Sept. 8, 1982

Application of Biological Markers for Carcinogen Testing, Bethesda, Maryland, 1982

Monoclonal and Anti-Idiotypic Antibodies as Probes on Receptor Structure and Function, 67th Annual Meeting of the FASEB, Chicago, Illinois, 1983

International Workshop on Immune Assay of Nuclear Antigens Relevant to Carcinogenesis and Chemotherapy, Patterson Laboratories, Manchester, England, 1982

INSERM Workshop on Nuclear Antigens and Carcinogenesis. Immunochemistry of DNA and Chromatin, Talloires, Lake Annecy, France, May 22-25, 1984

9th International Subcellular Methodology Forum, University of Surrey, Guildford (New London), U.K., Keynote Speaker, Sept. 4-6, 1984

International Symposium on the Molecular Basis of Nerve Activity, Berlin-Dahlem, Oct. 11-13, 1984

Symposium on the "Immunological Basis of Autoimmunity," Institut Pasteur, Paris, France, May 2-3, 1985.

International Conference on Autoimmunity, New York Academy of Sciences, June 17-19, 1985.

International Conference on "Idiotypes" Oklahoma City, Oklahoma, October 21-22, 1985.

International Symposium on "Antibodies: Structure, Synthesis, Function and Immunological Intervention in Disease." University of So. Florida, Clearwater, FL., Feb. 19-21, 1986.

Seventh International Conference on Myasthenia Gravis, New York Academy of Sciences, Mar. 4-7, 1986.

Symposium at the International School of Pure and Applied Biostructure, in Erice, Italy, June, 1986.

Symposium on Photocarcinogenesis, Johns Hopkins University School of Hygiene and Public Health, Baltimore, MD, June 17-19, 1987.

Symposium on "Immunomodulation: The Role of IgIV", Boston, Mass., October 6-8, 1988.

Third F.E.B.S. International Summer School on Immunology, Ionian Village, Greece. September 19-29, 1988.

Program in Molecular and Cell Biology, "Internal Image Antibodies for the Study of Receptors." University of Maryland, College Park, April 25, 1990.

12th Annual Dean's Day Symposium, "Genes, Molecules and Disease: Anti-Antibodies and Autoimmune Diseases." Columbia University, May 11, 1990.

Clinical Ligand Assay Society, New England Chapter. Lecture on Anti-DNA Antibodies, Cambridge, MA, June 1, 1990.

Meeting of The Biochemical Society, September 4-7, 1990. University of Dublin, Trinity College, Dublin, Ireland. Colloquium: "Strategies for Studying Membrane Proteins of the Nervous System."

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Screening Methods for the Identification of Anti-HIV Compounds Employing a Cyclosporine-Specific Monoclonal that Cross-Reacts with HIV-1 P24. Patent Number 6,177,253 B1 Date of Patent: Jan.23,2001.

Methods Relating to Immunogenic Dextran-Protein Conjugates. Wang, Erlanger and Kabat, Patent Number 6,287,568. Date of Patent: Sept. 11, 2001

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SELECTED LIST OF PUBLICATIONS

23. Steroid-Protein Conjugates: Their Chemical, Immunochemical and Endocrinological Properties. S. Lieberman, B.F. Erlanger, S.M. Beiser and F.J. Agate, *Rec. Prog. Horm. Res.* 15, 165 (1959).

24. Synthesis of Peptides Related to Gramicidin S. III. The Deca-peptide Containing L-Lysine Residues in Place of L-Ornithine. B.F. Erlanger, W.V. Curran and N. Kokowsky, *J. Am. Chem. Soc.* 81, 3051 (1959).

25. Synthesis of Peptides Related to Gramicidin S. IV. Two Polypeptide Intermediates Containing L-Phenylalanine in place of D-Phenylalanine. B.F. Erlanger, W.V. Curran and N. Kokowsky, *J. Am. Chem. Soc.* 81, 3055 (1959).

26. Antigenicity of Steroid-Protein Conjugates. S.M. Beiser, B.F. Erlanger, F.J. Agate and S. Lieberman, *Science* 129, 564 (1959).

29. Hypersensitivity to Purified Trypsin. C. Howe, B.F. Erlanger, S.M. Beiser, S.A. Ellison and W. Cohen, *New Eng. J. Med.* 265, 332 (1961).

33. Preparation and Properties of Two New Chromogenic Substrates of Trypsin. B.F. Erlanger, N. Kokowsky and W. Cohen, *Arch. Biochem. Biophys.* 95, 271 (1961).

36. Purine-Specific Antibodies which React with Deoxyribonucleic Acid (DNA). V.P. Butler, S.M. Beiser, B.F. Erlanger, S.W. Tanenbaum, S. Cohen and A. Bendich, *Nat. Acad. Sci.* 48, 1597 (1962).

40. Further Studies on the Biological Effects of Passive Immunization with Antibodies to Steroid-Protein Conjugates. R.O. Neri, S. Tolksdorf, S.M. Beiser, B.F. Erlanger, F.J. Agate and S. Lieberman, *Endocrin.* 74, 593 (1964).

42. Antibodies Specific for Ribonucleosides and Ribonucleotides and their Reaction with DNA. B.F. Erlanger and S.M. Beiser, *Proc. Nat. Acad. Sci.* 52, 68 (1964).

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45. Purine- and Pyrimidine-Specific Antibodies: Precipitation with Denatured Deoxyribonucleic Acid. S.M. Beiser, S.W. Tanenbaum and B.F. Erlanger, *Nature* 203, 1381 (1964).

50. A New Test for the Quantitative Determination of Chymotrypsin, Chymotrypsin-like Enzymes and their Inhibitors. C.E. Blackwood, B.F. Erlanger and I. Mandl, *Anal. Biochem.* 12, 125 (1965).

51. Purification and some Properties of Anti-testosterone Antibodies. P. Zimmering, B.F. Erlanger and S.M. Beiser, *J. Immunol.* 95, 262 (1965).

52. Specific and Reversible Inactivation of Pepsin. B.F. Erlanger, S.M. Vratsanos, N.H. Wassermann and A.G. Cooper, *J. Biol. Chem.* 240, PC3447 (1965).

53. The Inactivation of Chymotrypsin by Diphenylcarbamyl Chloride and its Reactivation by Nucleophilic Agents. B.F. Erlanger, A.G. Cooper and W. Cohen, *Biochem.* 5, 190 (1966).

54. Antibodies that React with Nucleic Acids. S.M. Beiser and B.F. Erlanger, *Symposium on Macromolecules, in Cancer Res.* 26, 2012 (1966).

57. Digoxin-Specific Antibodies. V.P. Butler, Jr., B.F. Erlanger and J. Chen, Abstract, 58th Annual Meeting of the American Society for Clinical Investigation. *J. Clin. Inv.* 45, 993 (1966).

58. Cyclization of S-(p-Bromophenacyl)-L-Cysteine as Observed by Nuclear Magnetic Resonance Spectroscopy. J.A. Glasel, N.H. Wassermann, B.F. Erlanger and S.M. Vratsanos, *Arch. Biochem. Biophys.* 115, 237 (1966).

59. Nuclear Reaction with Antinucleoside Antibodies. W.J. Klein, Jr., S.M. Beiser and B.F. Erlanger, *Fed. Proc.* 25, 372 (1966).

61. Purine and Pyrimidine Nucleoside Specific Antibodies: Effect on In Vitro Priming Ability of DNA. S.S. Wallace, B.F. Erlanger and S.M. Beiser, Abstract, 2nd International Biophysics Congress, 1966, p. 171.

64. The Preparation of Steroid-Protein Conjugates for the Elicitation of Anti-hormonal Antibodies. B.F. Erlanger, S.M. Beiser, F. Borek, F. Edel and S. Lieberman, *Meth. in Immunol. and Immunochem.* Vol. 1, 144 (1967).

65. Preparation of Purine- and Pyrimidine-Protein Conjugates. S.M. Beiser, B.F. Erlanger and S.W. Tanenbaum, *Methods in Immunology and Immunochemistry*, Vol. 1, 180 (1967), Academic Press, New York.

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68. Binding of Steroids to Steroid-Specific Antibodies. P. Zimmering, S. Lieberman and B.F. Erlanger, *Biochem.* 6, 154 (1967).
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69. Nuclear Fluorescence Employing Antinucleoside Immunoglobulins. W.J. Klein, Jr., S.M. Beiser and B.F. Erlanger, *J. Exp. Med.* 125, 61 (1967).
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73. Anti-Pyrimidine Antibodies and their Reaction with DNA's of Varying Base Composition. A.G. Garro, B.F. Erlanger and S.M. Beiser, *Fed. Proc.* 26, 874 (1967).
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74. Estimation of Steroid Hormones by an Immunochemical Technique. S.M. Beiser and B.F. Erlanger, *Nature* 214, 1044 (1967).
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75. On the Mode of Action of Penicillin. B.F. Erlanger and L. Goode, *Nature* 213, 183 (1967).
□
76. Hapten-Protein Conjugates: Methodology and Application. S.M. Beiser, V.P. Butler and B.F. Erlanger, *Textbook of Immunopathology*, Vol. 1, 15 (1968), Grune and Stratton, Pubs.
□
77. Purine- and Pyrimidine-Protein Conjugates. S.M. Beiser, S.W. Tanenbaum and B.F. Erlanger, *Methods in Enzymology XII, Part B*, 889 (1968), Grossman and Moldave, eds., Academic Press, New York.
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79. Effect of Pyrimidine Nucleoside-Specific Antibodies on In Vitro Priming Ability of DNA. S. S. Wallace, B.F. Erlanger and S.M. Beiser, *Fed. Proc.* 27, 265 (1968).
80. Immunofluorescent Studies of Lupus Nephritis in Man. B.C. Seegal, L. Accinni, G.A. Andres, S.M. Beiser, C. Bruni, C.L. Christian, B.F. Erlanger and K.C. Hsu, *Fed. Proc.* 27, 544 (1968).
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81. Specificity in the Reaction between Anti-Pyrimidine Nucleoside Antibodies and DNA. A.G. Garro, B.F. Erlanger and S.M. Beiser, *Nucleic Acids in Immunology*, Springer-Verlag, Pubs., 1968, p. 47.
□
83. Antibodies Specific for Purine and Pyrimidine Nucleosides: Effect on In Vitro Priming Ability of DNA. S.S. Wallace, B.F. Erlanger and S.M. Beiser, *J. Mol. Biol.* 43, 41 (1969).
□
84. Immunologic Studies of Autoimmune Disease in NZB/NZW F1 Mice. I. Binding of Fluorescein-labeled Antinucleoside Antibodies in Lesions of Lupus-like Nephritis. B.C. Seegal, L. Accinni, G.A. Andres, S.M. Beiser, C.L. Christian, B.F. Erlanger and K.C. Hsu, *J. Exp. Med.* 130, 203 (1969).
S.M. Beiser and B.F. Erlanger, *J. Immunol.* 103, 1157 (1969).

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- 87. Photoregulation of Biological Activity by Photochromic Reagents. II. Inhibitors of Acetylcholinesterase. J. Bieth, S.M. Vratsanos, N.H. Wassermann and B.F. Erlanger, Proc. Nat. Acad. Sci. 64, 1103 (1969).
- 88. Photoregulation of Biological Activity by Photochromic Reagent . W.J. Deal, B.F. Erlanger and D. Nachmansohn, Proc. Nat. Acad. Sci. 64, 1230 (1969).
- 89. Pyrimidine-Specific Antibodies: Reaction with DNA of Differing Base Composition. A.J. Garro, B.F. Erlanger and S.M. Beiser, Bact. Proc. 1969, p.45.
- 92. Localization of Fluorescein-labeled Antinucleoside Antibodies in Glomeruli of Patients with Systemic Lupus Erythematosus Nephritis. G.A. Andres, L. Accinni, S.M. Beiser, C.L. Christian, G.A. Cinotti, B.F. Erlanger, K.C. Hsu and B.C. Seegal, J. Clin. Invest. 49, 2106 (1970).
- 93. Operational Normality of α -Chymotrypsin Solutions by a Sensitive Potentiometric Technique using a Fluoride Electrode. B.F. Erlanger and R. Sack, Anal. Biochem. 33, 318 (1970).
- 94. Photoregulation of Biological Activity by Photochromic Reagents. IV. A Model for Diurnal Variation of Enzymic Activity. J. Bieth, N.H. Wassermann, S.M. Vratsanos and B.F. Erlanger, Proc. Nat. Acad. Sci. 66, 850 (1970).
- 96. Antibodies to Nucleic Acids. Immunochemical Studies on Dinucleoside Phosphate- Protein Conjugates. S.S. Wallace, B.F. Erlanger and S.M. Beiser, Biochem. 10, 679 (1971).
- 97. Pyrimidine-Specific Antibodies: Reaction with DNA's of Differing Base Compositions. A.J. Garro, B.F. Erlanger and S.M. Beiser, J. Immunol. 106, 442 (1971).
- 98. Investigation of the Active Center of Trypsin using Photochromic Substrates M.A. Wainberg and B.F. Erlanger, Biochem. 10, 3816 (1971).
- 99. Selective Inhibition of Transformed Cells in Tissue Culture by Anti-Thymidine Antibodies. D.S.P. Liebeskind, K.C. Hsu, B.F. Erlanger and S.M. Beiser, Nature 234, 127 (1971).
- 100. Immunochemical Detection of Minor Bases in Nucleic Acids. D.L. Sawicki, B.F. Erlanger and S.M. Beiser, Science 174, 70 (1971).
- 101. Photochromic Activators of the Acetylcholine Receptor. E. Bartels, N.H. Wassermann and B.F. Erlanger, Proc. Nat. Acad. Sci. 68, 1820 (1971).

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102. Reaction of Antinucleoside Antibodies with Human Cells In Vitro. M.V.R. Freeman, S.M. Beiser, B.F. Erlanger and O.J. Miller, *Exp. Cell Res.* 69, 345 (1971).
□
103. Radioimmunochemical Studies on Nucleoside-Specific Antibodies using Iodinated DNA. B.J. Rosenberg, B.F. Erlanger and S.M. Beiser, *J. Immunol.* 108, 271 (1972).
□
104. Nucleic Acid-Reactive Antibodies Specific for Nucleosides and Nucleotides. B.F. Erlanger, D. Senitzer, O.J. Miller and S.M. Beiser, *Vth Karolinska Symposium, Acta endocrinologica, Supplement Number 168* (1972), p. 206.
□
105. Consistent Pattern of Binding of Anti-adenosine Antibodies to Human Metaphase Chromosomes. V.G. Dev, D. Warburton, O.J. Miller, D.A. Miller, B.F. Erlanger and S.M. Beiser, *Exp. Cell Res.* 74, 288 (1972).
□
107. Nucleic Acid Structures as Antigenic Determinants. S.M. Beiser and B.F. Erlanger, *3rd International Convocation on Immunology*, Buffalo, N.Y., 1972, pp. 106-117 (1973).
□
108. Chromosome Structure as Revealed by a Combined Chemical and Immunochemical Procedure. R.R. Schreck, D. Warburton, O.J. Miller, S.M. Beiser and B.F. Erlanger, *Proc. Nat. Acad. Sci. USA* 70, 804-807 (1973).
□
109. Principles and Methods for the Preparation of Drug Protein Conjugates for Immunologic Studies. B.F. Erlanger, *Pharmacol. Rev.* 25, 271-280 (1973).
□
110. Allosteric Activation of Chymotrypsin-Catalyzed Hydrolysis of Specific Substrates. B.F. Erlanger, N.H. Wassermann and A.G. Cooper, *Biochem. Biophys. Res. Comm.* 52, 208-215 (1973).
□
111. Photoregulation of Biological Activity by Photochromic Reagents. Inactivators of Acetylcholinesterase. J. Bieth, S.M. Vrutsanos, N.H. Wassermann, A.G. Cooper and B.F. Erlanger, *Biochem.* 12, 3023-3027 (1973).
□
112. Specific Binding of Ribonucleic Acid by Anti-adenosine Antibodies. B.J. Rosenberg, B.F. Erlanger and S.M. Beiser, *Biochem.* 12, 2191-2197 (1973).
□
113. Immunofluorescent Studies of Chromosome Banding with Antinucleoside Antibodies. O.J. Miller, R.R. Schreck, S.M. Beiser and B.F. Erlanger, *Nobel Symposium*, 1973.
□
114. Binding of Antinucleoside Antibody to DNA. D. Senitzer, B.F. Erlanger and S.M. Beiser, *Immunochem.* 11, 321-324 (1974).
□
115. Immunoreactivity to Antinucleoside Antibodies in X-Irradiated HeLa Cells. D.

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Liebeskind, K.C. Hsu, B.F. Erlanger and R. Bases, *Exp. Cell. Res.* 83, 399-405 (1974).

116. Antibodies to the Insect Moulting Hormone B-Ecdysone R.C. Lauer, P.H. Solomon, K. Nakanishi and B.F. Erlanger, *Experientia* 30, 560-562 (1974).

117. Antibodies to Insect C16-Juvenile Hormone R.C. Lauer, P.H. Solomon, K. Nakanishi and B.F. Erlanger, *Experientia* 30, 588-590 (1974).

118. Antibodies to the Codons ApApA, ApApC and ApUpG R. D'Alisa and B.F. Erlanger, *Biochem.* 13, 3575-3579 (1974).

119. 5-Methylcytosine Localized in Mammalian Constitutive Heterochromatin O.J. Miller, W. Schnedl, J. Allen and B.F. Erlanger, *Nature* 251, 636-637 (1974).

120. An Enzyme Immunoassay of Antibody Specific for Adenosine using B-Galactosidase R.C. Lauer and B.F. Erlanger, *Immunochem.* 11, 533-536 (1974).

121. The Use of Antinucleoside Antibodies to Probe the Organization of Chromosomes Denatured by Ultraviolet Irradiation R.R. Schreck, B.F. Erlanger and O.J. Miller, *Exp. Cell Res.* 88, 31-39 (1974).

122. Human Chromosome Structure as Revealed by an Immunoperoxidase Staining Procedure B.W. Lubit, R.R. Schreck, O.J. Miller and B.F. Erlanger, *Exp. Cell Res.* 89, 426 (1974).

123. Use of Antibodies to Nucleosides and Nucleotides in Studies of Nucleic Acid in Cells B.F. Erlanger, W.J. Klein, Jr., V.G. Dev, R.R. Schreck and O.J. Miller, *Methods in Enzymology*, Vol. XL, Academic Press, N.Y., 1975, p. 302.

124. Interstitial Immune Complex Nephritis in Patients with Systemic Lupus Erythematosus J.R. Brentjens, M. Sepulveda, T. Ballah, C. Bentzel, B.F. Erlanger, C. Elwood, M. Montes, K.C. Hsu and G.A. Andres, *Kidney International* 7, 342-350 (1975).

125. 5-Methylcytosine in Heterochromatic Regions of Chromosomes: Chimpanzee and Gorilla Compared to the Human W. Schnedl, V.G. Dev, R. Tantravahi, D.A. Miller, B.F. Erlanger and O.J. Miller, *Chromosoma (Berlin)* 52, 59-66 (1975).

126. Immunochemical Probes of Human Chromosome Organization O.J. Miller and B.F. Erlanger, in *Pathobiology Annual*, Vol. 5, (H.L. Ioachim, M.D., ed.), Appleton-Century-Crofts, N.Y., 1975, pp. 71-103.

127. Chromosome Markers in *Mus musculus*: Differences in C-Banding between the Subspecies *M.m. musculus* and *M.m. molossinus* V.G. Dev, D.A. Miller, R. Tantravahi, R.R. Schreck, T.H. Roderick, B.F. Erlanger and O.J. Miller, *Chromosoma (Berlin)* 53, 335-344 (1975).

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- 128. Allosteric Activation of the Hydrolysis of Specific Substrates by Chymotrypsin. B.F. Erlanger, N.H. Wassermann, A.G. Cooper and R.Monk, Eur. J. Biochem. 61, 287-295 (1975).
- 129. Immunochemical Probes of Chromosome Organization Orlando J. Miller and Bernard F. Erlanger, Ph.D., Adv. in Patho- biology 3, 55-65 (1975), based on a series of lectures presented at the Given Institute of Pathobiology of the University of Colorado at Aspen, in July 1975.
- 130. 5-Methylcytosine in Heterochromatic Regions of Chromosomes in Bovidae W. Schnedl, B.F. Erlanger and O.J. Miller, Human Genet. 31, 21-26 (1976).
- 131. Nucleic Acid-Reactive Antibodies of Restricted Heterogeneity D.J. Cameron and B.F. Erlanger, Immunochem. 13, 264-269 (1976).
- 132. Antibodies to the Triplet Codons AAA, AAC and AUG: Reactions with Nucleic Acids R. D'Alisa and B.F. Erlanger, J. Immunol. 116, 1629-1634 (1976).
- 133. Antibodies to Histones and Histone-Histone Complexes: Immunochemical Evidence for Secondary Structure in Histone 1 N. Mihalakis and B.F. Erlanger, Science 192, 469-471 (1976).
- 134. Photoregulation of Biologically Active Macromolecules B.F. Erlanger, Ann. Rev. Biochem. 45, 267-283 (1976).
- 135. An Enzyme-linked Procedure for the Detection and Estimation of Surface Receptors on Cells D.J. Cameron and B.F. Erlanger, J. Immunol. 116, 1313-1318 (1976).
- 136. Localization of 5-Methylcytosine in Human Metaphase Chromosomes by Immunoelectron Microscopy B.W. Lubit, T.D. Pham, O.J. Miller and B.F. Erlanger, Cell 9,503-509 (1976).
- 137. Hapten-Protein Conjugates: Methodology and Application S.M. Beiser, V.P. Butler and B.F. Erlanger, Textbook of Immunopathology, Vol. I, Second Ed. Grune & Stratton, pp. 15-29, 1976.
- 138. Immunofluorescence for the Detection of Photochemical Lesions in Intracellular DNA B. Gutter, Y. Nishioka, W.T. Speck, H.S. Rosenkranz, B. Lubit and B.F. Erlanger, Exp. Cell Res. 102, 413-416 (1976).
- 139. Preferential Derivation of Abnormal Human G-Group-Like Chromosomes from Chromosome 15 R.R. Schreck, W.R. Breg, B.F. Erlanger and O.J. Miller, Human Genet. 36, 1-12 (1977).

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140. Evidence for Multispecificity of Antibody Molecules. D.J. Cameron and B.F. Erlanger, *Nature* 268, 763-765 (1977).
141. The Structural Organization of Mouse Metaphase Chromosomes R.R. Schreck, V.G. Dev, B.F. Erlanger and O.J. Miller, *Chromosoma (Berlin)* 62, 337-350 (1977).
142. Binding of Antinucleoside Antibodies Reveals Different Classes of DNA in the Chromosome of the Kangaroo Rat (*Dipodomys ordii*). R.R. Schreck, B.F. Erlanger and O.J. Miller, *Exp. Cell Res.* 108, 403-404 (1977).
143. Immunological Approaches to Chromosome Banding O.J. Miller and B.F. Erlanger, *ICN/UCLA Symposia Proceedings, Human Cytogenet.* VII, 87-99 (1977).
144. Mapping the Locus of the H-Y Gene on the Human Y Chromosome G.C. Koo, S.S. Wachtel, K. Krupen-Brown, L.R. Mitti, W. Roy Breg, M. Genel, I.M. Rosenthal, D.S. Borgaonkar, D.A. Miller, R. Tantravahi, R.R. Schreck, B.F. Erlanger and O.J. Miller, *Science* 198, 940-942 (1977).
145. Peroxidase Technique for the Detection of Photochemical Lesions in Intracellular Deoxyribonucleic Acid R. Santella, H.S. Rosenkranz, S. Brem, B.W. Lubit, B.F. Erlanger and W.T. Speck, *Pediat. Res.* 11, 939-941 (1977).
146. A General Method for Studying the Secretion of Macromolecules by Single Cells. I. Detection of Immunoglobulin-Secreting Cells. W.L. Cleveland and B.F. Erlanger, *Cellular Immunol.* 37, 229-242 (1978).
147. Immunochemical Studies on the 5-Methylcytosine Content of African Green Monkey Satellite DNA. Z.E. Kahana, O.J. Miller and B.F. Erlanger, *Cold Spring Harbor Symposia on Quant. Biol.* Vol. XLII, 397-400 (1978).
148. Antibodies to Poly d(A-T) and their Reactions with Oligonucleotides and Nucleic Acids. B.W. Lubit and B.F. Erlanger, *Immunochem.* 15, 663-671 (1978).
149. Conformational Properties of the Acetylcholine Receptor as Revealed by Studies with Constrained Depolarizing Ligands. N.H. Wassermann, E. Bartels and B.F. Erlanger, *Proc. Nat. Acad. Sci. USA* 76, 256-259 (1979).
150. Isolation and Characterization of Rabbit anti-m7G-5'-P Antibodies of High Apparent Affinity. R.D. Meredith and B.F. Erlanger, *Nucl. Acids Res.* 6, 2179-2191 (1979).
151. Immune Complex-Mediated Interstitial Cystitis as Major Manifestation of Systemic Lupus Erythematosus. E. Boye, M. Morse, I. Huttner, B.F. Erlanger,

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